

Claims

- [c1] 1. A downhole component adapted for transmitting downhole data, the component comprising:
 - a data transmission element and an elongate, generally tubular body with a threaded end, the threaded end having an interior region, an exterior region, and a mating surface;
 - a cavity formed in the mating surface of the threaded end, wherein the data transmission element is disposed in the cavity and at least partially displacing a volume of the cavity, and;
 - at least one passageway formed in the threaded end in fluid communication with the interior and exterior regions.
- [c2] 2. The downhole component of claim 1 wherein a second passageway formed in the threaded end is in fluid communication with an axially oriented passageway in the downhole component and at least one of the interior and exterior regions.
- [c3] 3. The downhole component of claim 2 wherein the axially oriented passageway is in fluid communication with the cavity and at least one of the interior and exterior re-

gions.

- [c4] 4. The downhole component of claim 1 wherein the passageway is in fluid communication with the cavity.
- [c5] 5. The downhole component of claim 1 wherein a third passageway is in fluid communication with the cavity and the passageway.
- [c6] 6. The downhole component of claim 1 wherein the component has a plurality of passageways in fluid communication with the interior and exterior regions.
- [c7] 7. The downhole component of claim 1 wherein the data transmission element is movable and changes the displaced volume of the cavity as it moves.
- [c8] 8. The downhole component of claim 1 wherein the component is selected from the group consisting of drill collars, jars, heavy weight drill pipe, drill bits, and drill pipe.
- [c9] 9. A downhole component adapted for transmitting downhole data, the component comprising:
a data transmission element and an elongate, generally tubular body with a threaded end, the threaded end having an interior region, an exterior region, and a mating surface;

a cavity formed in the mating surface of the threaded end, wherein the data transmission element is disposed in the cavity and at least partially displacing a volume of the cavity, and;

at least one passageway formed in the threaded end in fluid communication with the cavity and at least one of the interior and exterior regions.

- [c10] 10. The downhole component of claim 9 wherein a second passageway formed in the threaded end is in fluid communication with an axially oriented passageway in the downhole component and at least one of the interior and exterior regions.
- [c11] 11. The downhole component of claim 10 wherein the axially oriented passageway is in fluid communication with the cavity and at least one of the interior and exterior regions.
- [c12] 12. The downhole component of claim 9 wherein an axially oriented passageway is in fluid communication with the cavity.
- [c13] 13. The downhole component of claim 9 wherein a third passageway is in fluid communication with the cavity and the passageway.
- [c14] 14. The downhole component of claim 9 wherein the

component has a plurality of passageways in fluid communication with the interior and exterior regions.

- [c15] 15. The downhole component of claim 9 wherein the data transmission element is movable and changes the displaced volume of the cavity as it moves.
- [c16] 16. The downhole component of claim 9 wherein the component is selected from the group consisting of drill collars, jars, heavy weight drill pipe, drill bits, and drill pipe.